



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2021-0832; Project Identifier MCAI-2020-01550-T; Amendment 39-22067; AD 2022-11-17]

RIN 2120-AA64

#### Airworthiness Directives; Bombardier, Inc., Airplanes

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. This AD was prompted by reports of internal corrosion on the inboard flaps found prior to regularly scheduled maintenance checks. This AD requires revising the existing maintenance or inspection program, as applicable, to incorporate a certain aircraft maintenance manual (AMM) task. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Bombardier Business Aircraft Customer Response Center, 400 Côte Vertu Road West, Dorval, Québec H4S 1Y9, Canada; 514-855-2999; email [ac.yul@aero.bombardier.com](mailto:ac.yul@aero.bombardier.com); internet

<https://www.bombardier.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0832.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0832; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Antariksh Shetty, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email [9-avs-nyacocos@faa.gov](mailto:9-avs-nyacocos@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF-2020-49R1, dated May 20, 2021 (TCCA AD CF-2020-49R1) (also referred to after this as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0832.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. The NPRM published in the *Federal Register* on September 27, 2021 (86 FR 53246). The NPRM was prompted by reports of internal corrosion on the inboard flaps found prior to regularly scheduled maintenance checks. The NPRM proposed to require revising the existing maintenance or inspection program, as applicable, to incorporate a certain AMM task. The FAA is issuing this AD to address internal corrosion on the inboard flaps, which could result in reduced structural integrity, detachment of the flap, and consequent reduced controllability of the airplane. See the MCAI for additional background information.

### **Comments**

The FAA received comments from an individual who supported the NPRM without change.

The FAA received comments from Bombardier, Inc., and NetJets QC. The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Request to Change Address for Obtaining Service Information**

Bombardier asked that the address for obtaining its service information be updated. Bombardier stated that its contact information has changed since issuance of the NPRM.

The FAA agrees with the commenter and have changed the address for obtaining service information throughout this final rule accordingly.

### **Request to Clarify Why AMM Task Number was Used**

NetJets QC asked if there is a reason why the AMM task number was used instead of the time limits maintenance checks (TLMC) task number.

The FAA acknowledges the commenter's request for clarification. TCCA AD CF-2020-49R1 references TLMC tasks for Models BD-700-1A10 and BD-700-1A11, but Part 3 of the TLMC document specifies that all tasks in that section are Maintenance Review Board Report (MRBR) tasks. The FAA cannot require MRBR tasks because those tasks do not provide precise instructions on how the tasks must be done. Therefore, the AMM task for each airplane model is referenced in this AD, and the FAA has not changed this AD in this regard.

### **Request to Refer to Most Recent AMM Revision Level**

Bombardier asked that the AMM task revision levels identified in the NPRM be changed, as there have been recent improvements to the documents. Bombardier added that credit for the revisions currently listed should also be included in the proposed AD. Bombardier noted that the referenced AMM revision levels were revised during the public comment period of the NPRM.

The FAA disagrees with the commenter's request. This AD requires incorporating the information provided in the referenced AMM revisions specified in figure 1 to paragraph (g) of this AD. The language in paragraph (g) of this AD allows the incorporation of the specific information, regardless of the AMM revision level in use, provided the language is identical to the information provided in Task 57-51-00-290-801 specified in the applicable AMMs in specified in figure 1 to paragraph (g) of this AD. The language in a later revision of the applicable AMMs specified in figure 1 to paragraph (g) of this AD may be incorporated. Therefore, if operators incorporate later AMMs into the maintenance or inspection program, as applicable, they are in compliance with paragraph (g) of this AD. The FAA has confirmed that the revisions cited by the commenter are identical to the revisions specified in this AD.

If the language provided in a later AMM revision is not identical to the language provided in the task specified in the applicable AMMs specified in figure 1 to paragraph

(g) of this AD, operators must submit a request for approval of an alternate method of compliance (AMOC) with supporting data that demonstrates an acceptable level of safety for a task that differs from Task 57-51-00-290-801.

The FAA has not changed this AD regarding this request.

#### **Request to Change “Unsafe Condition” to “Potential Unsafe Condition”**

Bombardier asked that the FAA change references to the “unsafe condition” in the preamble of the NPRM to “potential unsafe condition.” Bombardier provided no justification for this request.

The FAA disagrees with the commenter’s request. The definition of the unsafe condition in this final rule was determined by findings of internal corrosion on the inboard flaps. In addition, the unsafe condition was addressed in the background section of TCCA AD CF-2020-49R1. Stating that there is potential for an unsafe condition is misleading as it would imply that corrosion wasn’t found previously. Therefore, the FAA has not changed this final rule regarding this request.

#### **Request to Change Description of the Unsafe Condition in Paragraph (e) of the Proposed AD**

Bombardier asked that the language describing the unsafe condition specified in paragraph (e) of the proposed AD be changed to add more detail, as follows: “The FAA is issuing this AD to supplement operator's maintenance program by mandating a periodic inspection of the internal structures of the flaps to prevent a possible reduction in the structural integrity, detachment of the flap, and consequent reduced controllability of the airplane.” Bombardier provided no justification for this request.

The FAA disagrees with the commenter’s request. The purpose of the description of the unsafe condition in paragraph (e) of this AD is to indicate why a problem is unsafe and the possible results and ultimate consequences if the unsafe condition is not corrected. The FAA is issuing this AD to address the unsafe condition by requiring revision of the existing maintenance or inspection program by mandating inspections of

the internal structures of the flaps to address the internal corrosion. The FAA is not issuing this AD to “supplement the operator’s maintenance program by mandating a periodic inspection of the internal structures to prevent a possible reduction in the structural integrity.” The FAA has not changed this AD in this regard.

## **Conclusion**

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the changes described previously and minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

The FAA also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

## **Related Service Information under 1 CFR Part 51**

Bombardier issued the following service information. These documents describe amendments to the AMM to include inspections of the inboard flap internal ribs for corrosion. These documents are distinct since they apply to different airplane serial numbers.

- Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global Express Aircraft Maintenance Manual - Part Two, Publication No. BD-700 AMM, Revision 90, dated May 19, 2021. (For obtaining the task for the Bombardier Global Express AMM – Part Two, Publication No. BD-700 AMM, use Document Identification No. GL 700 AMM.)

- Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global Express XRS Aircraft Maintenance Manual - Part Two, Publication No. BD-700 XRS AMM, Revision 68, dated May 19, 2021. (For obtaining the task for the Bombardier Global Express XRS AMM – Part Two, Publication No. BD-700 XRS AMM, use Document Identification No. GL XRS AMM.)

- Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global 5000 Aircraft Maintenance Manual - Part Two, Publication No. BD-700 AMM, Revision 71, dated May 19, 2021. (For obtaining the task for the Bombardier Global 5000 AMM – Part Two, Publication No. BD-700 AMM, use Document Identification No. GL 5000 AMM.)

- Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global 5000 Featuring Global Vision Flight Deck Aircraft Maintenance Manual - Part Two, Publication No. GL 5000 GVFD AMM, Revision 38, dated May 19, 2021.

- Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global 5500 Aircraft Maintenance Manual - Part Two - Publication No. GL 5500 AMM, Revision 7, dated May 19, 2021.

- Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global 6000 Aircraft Maintenance Manual – Part Two, Publication No. GL 6000 AMM, Revision 39, dated May 19, 2021.

- Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier

Global 6500 Aircraft Maintenance Manual – Part Two, Publication No. GL 6500 AMM, Revision 8, dated May 19, 2021.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

The FAA estimates that this AD affects 141 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

The FAA has determined that revising the maintenance or inspection program takes an average of 90 work-hours per operator, although the agency recognizes that this number may vary from operator to operator. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), the FAA has determined that a per-operator estimate is more accurate than a per-airplane estimate. Therefore, the agency estimates the average total cost per operator to be \$7,650 (90 work-hours x \$85 per work-hour).

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products



identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2022-11-17 Bombardier, Inc.:** Amendment 39-22067; Docket No. FAA-2021-0832; Project Identifier MCAI-2020-01550-T.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes, certificated in any category, serial numbers 9001 through 9879 inclusive, 9998, and 60001 through 60033 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 05, Time Limits/Maintenance Checks.

**(e) Reason**

This AD was prompted by reports of internal corrosion on the inboard flaps found prior to regularly scheduled maintenance checks. The FAA is issuing this AD to address internal corrosion on the inboard flaps, which could result in reduced structural integrity, detachment of the flap, and consequent reduced controllability of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Revision of the Existing Maintenance or Inspection Program**

Within 30 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to include the information specified in Task 57-51-00-290-801, "Special Detailed Inspection of the Inboard-Flap Internal Ribs," of Subject 57-51-00, "Flaps," in Chapter 57, "Wings," of the applicable Bombardier Aircraft Maintenance Manual (AMM) identified in figure 1 to paragraph (g) of this AD and to include the following compliance times for Task 57-51-00-290-801: Within 60 months after the effective date of this AD (for the initial compliance time), and repeat thereafter at intervals not to exceed 60 months.

**Figure 1 to paragraph (g) – Applicable AMMs**

<b>Airplane Model</b>	<b>Bombardier AMM</b>
BD-700-1A10	Bombardier Global Express Aircraft Maintenance Manual - Part Two, Publication No. BD-700 AMM, Revision 90, dated May 19, 2021 <sup>1</sup>
BD-700-1A10	Bombardier Global Express XRS Aircraft Maintenance Manual - Part Two, Publication No. BD-700 XRS AMM, Revision 68, dated May 19, 2021 <sup>2</sup>
BD-700-1A10	Bombardier Global 6000 Aircraft Maintenance Manual – Part Two, Publication No. GL 6000 AMM, Revision 39, dated May 19, 2021
BD-700-1A10	Bombardier Global 6500 Aircraft Maintenance Manual – Part Two, Publication No. GL 6500 AMM, Revision 8, dated May 19, 2021
BD-700-1A11	Bombardier Global 5000 Aircraft Maintenance Manual - Part Two, Publication No. BD-700 AMM, Revision 71, dated May 19, 2021 <sup>3</sup>
BD-700-1A11	Bombardier Global 5000 Featuring Global Vision Flight Deck Aircraft Maintenance Manual - Part Two, Publication No. GL 5000 GVFD AMM, Revision 38, dated May 19, 2021
BD-700-1A11	Bombardier Global 5500 Aircraft Maintenance Manual - Part Two, Publication No. GL 5500 AMM, Revision 7, dated May 19, 2021
<sup>1</sup> For obtaining the task for the Bombardier Global Express AMM, Publication No. BD-700 AMM, use Document Identification No. GL 700 AMM.	
<sup>2</sup> For obtaining the task for the Bombardier Global Express XRS AMM, Publication No. BD-700 XRS AMM, use Document Identification No. GL XRS AMM.	
<sup>3</sup> For obtaining the task for the Bombardier Global 5000 AMM, Publication No. BD-700 AMM, use Document Identification No. GL 5000 AMM.	

**(h) No Alternative Actions or Intervals**

After the existing maintenance or inspection program has been revised as required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals, may be used unless the actions or intervals, are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (i)(1) of this AD.

**(i) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(j) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2020-49R1, dated May 20, 2021, for related information. This MCAI may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0832.

(2) For more information about this AD, contact Antariksh Shetty, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global Express Aircraft Maintenance Manual - Part Two, Publication No. BD-700 AMM, Revision 90, dated May 19, 2021.

Note 1 to paragraph (k)(2)(i): For obtaining the task for the Bombardier Global Express AMM – Part Two, Publication No. BD-700 AMM, use Document Identification No. GL 700 AMM.

(ii) Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global Express XRS Aircraft Maintenance Manual - Part Two, Publication No. BD-700 XRS AMM, Revision 68, dated May 19, 2021.

Note 2 to paragraph (k)(2)(ii): For obtaining the task for the Bombardier Global Express XRS AMM – Part Two, Publication No. BD-700 XRS AMM, use Document Identification No. GL XRS AMM.

(iii) Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global 5000 Aircraft Maintenance Manual - Part Two, Publication No. BD-700 AMM, Revision 71, dated May 19, 2021.

Note 3 to paragraph (j)(2)(iii): For obtaining the task for the Bombardier Global 5000 AMM – Part Two, Publication No. BD-700 AMM, use Document Identification No. GL 5000 AMM.

(iv) Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global 5000 Featuring Global Vision Flight Deck Aircraft Maintenance Manual - Part Two, Publication No. GL 5000 GVFD AMM, Revision 38, dated May 19, 2021.

(v) Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global 5500 Aircraft Maintenance Manual - Part Two, Publication No. GL 5500 AMM, Revision 7, dated May 19, 2021.

(vi) Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global 6000 Aircraft Maintenance Manual – Part Two, Publication No. GL 6000 AMM, Revision 39, dated May 19, 2021.

(vii) Task 57-51-00-290-801, “Special Detailed Inspection of the Inboard-Flap Internal Ribs,” of Subject 57-51-00, “Flaps,” in Chapter 57, “Wings,” of the Bombardier Global 6500 Aircraft Maintenance Manual – Part Two, Publication No. GL 6500 AMM, Revision 8, dated May 19, 2021.

(3) For service information identified in this AD, contact Bombardier Business Aircraft Customer Response Center, 400 Côte Vertu Road West, Dorval, Québec H4S 1Y9, Canada; 514-855-2999; email [ac.yul@aero.bombardier.com](mailto:ac.yul@aero.bombardier.com); internet <https://www.bombardier.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on May 24, 2022.

Christina Underwood, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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